REMARKS

The present Amendment is responsive to the Office Action mailed February 13, 2003 in the above-identified application. Enclosed herewith is a petition requesting a three-month extension of time for resetting the deadline for responding to the Office Action from May 13, 2003 to and including August 13, 2003.

The Examiner rejected claims 21-25, 27-29 and 34-41 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,121,127 to Shibata et al. Referring to FIG. 1, Shibata teaches removing portions of layers numbered 4-7 to form an upper platform for a first electrode over layer 7 and a lower platform for a second electrode over layer 4. Referring to FIGS. 2A and 2B, an electrode 8A is formed atop layer 7 by laminating a photoresist layer 9 having a window 9A atop layer 7 and then depositing metal electrode layers 81 and 82 in the window 9A. The photoresist layer 9 is then removed to provide electrode 8A, having a nickel metal electrode layer 81 and a gold metal electrode layer 82 (FIG. 2B). Thus, Shibata teaches etching the semiconductor structure to form upper and lower platforms for electrodes and then forming an electrode atop the upper platform. In contrast, the present application describes a self-aligning process for making a transparent electrode for a light-emitting diode. During the self-aligning process, first and second metal layers 18 are deposited over a top surface 14 of semiconductor structure 11 and a resist layer 24 is deposited over the second metal layer 20, as shown in FIG. 4. The resist layer 24 is then subjected to a further lithographic process to define openings 30 therein, as shown in FIG. 5. Referring to FIGS. 7 and 8, as the resist layer 24 protects the metal in first regions 28, the metal in second regions 30 is etched away to expose the top surface 14 of the semiconductor structure. Referring to FIG. 9, using the resist material 24 overlying the first regions 28, the semiconductor layers 16, 19 and 17 are etched away to expose lower regions 38 below the junction layer 19. Referring to FIG. 11, the resist 24 is then removed so as

to expose the metal layers 18 and 20 that form electrodes for the semiconductor structure. The metal layers 18 and 20 are then annealed to form a transparent top electrode 64 atop mesa 40. In response to the Examiner's Section 102(b) rejection and in order to more clearly set forth the scope of the claimed invention, Applicant has amended claim 21 as noted above. Claim 21 is clearly unanticipated by Shibata because the cited reference neither discloses nor suggests a method of making a transparent electrode for a light-emitting diode including

> removing metal aligned with the at least one opening in the mask in the second region to form the first electrode overlying the first region of the semiconductor structure and so as to reveal the top surface of the semiconductor structure in the second region; and
>
> after forming the first electrode during the removing metal step, removing material from the semiconductor structure aligned with the at least one opening in the second region to form a second electrode surface for a second electrode, the second electrode surface being lower in elevation than the top surface of the semiconductor structure.

Clearly, Shibata's mesas are formed first followed by alignment of photoresist layer 9 atop layer 7 for forming an electrode (FIG. 2A). In contrast, claim 21 of the present application clearly recites that the electrodes are formed before removing material from the semiconductor structure for forming a second electrode surface for a second electrode at a lower elevation than the top surface of the semiconductor structure. For all of these reasons, claim 21 is unanticipated by Shibata and is otherwise allowable. Claims 22-25, 27-29 and 34-41 are also unanticipated, *inter alia*, by virtue of their dependence from claim 21, which is unanticipated for the reasons set forth above.

The Examiner has also rejected claims 26 and 30-33 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,121,127 to Shibata in view of U.S. Patent Application Publication 2002/0055871 to Takeya et al. Although Takeya discloses using a photoresist for forming an electrode, Takeya

does not overcome the deficiencies noted above in Shibata. For all of these reasons, Applicant respectfully asserts that claims 26 and 30-33 are unobvious over Shibata and Takeya and are otherwise allowable.

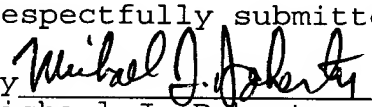
As it is believed that all of the rejections set forth in the Office Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that she telephone Applicant's attorney at (908) 654-5000 in order to overcome any additional objections which she might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: August 7, 2003

Respectfully submitted,

By 

Michael J. Doherty
Registration No.: 40,592
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 654-5000
Attorney for Applicant

444965_1.DOC